

EPA Core Element	Objective	Action	Status
Monitoring and Assessment	Continue Established Water Quality Monitoring Network for Wetlands on Public Lands	Review existing monitoring of wetlands being done by KDWPT, USGS, KDHE, non-profits and expand where needed	Annual reports are prepared by the KDHE Lake and Wetland Monitoring program to track status and trends of water quality in wetlands on public lands.
		Review and evaluate the monitoring process on an annual basis and make improvements as necessary.	In addition to routine monitoring, additional targeted studies are included as needs/questions arise. Some sites are rotated in and out of the sampling schedule and new sites are occasionally added. KBS has done some targeted monitoring on the Missouri River wetlands and reports are available.
		Develop criteria to identify high priority wetlands and riparian areas.	Overlay of Topographic Wetland Identification Process (TWIP) identified Potential Wetland Areas (PWA) of watersheds with restoration needs will assist in identifying high priority wetlands for protection and restoration.
		Complete water quality sampling and analysis in watersheds covered in Wetland Program Development Grants (WPDG)	<p>Wetland water quality samples on public and private lands have been collected from the upper Wakarusa and upper Neosho watersheds. Additional water quality samples will be collected from another HUC 12 with funding from the 011 WPDG. This watershed is also in the Upper Neosho and contains streams that are both potential heritage streams and degraded streams. Samples will be collected from wetlands associated with both stream types.</p> <p>As water quality sampling is occurring a select subset of wetlands has a functional assessment applied to them. This is providing information to allow us to establish baseline functional status of different wetland types so that trends can be evaluated in the future. When applied to a whole watershed, functional assessments can also identify which functions are lacking and</p>
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			efforts can be made to enhance those functions through restoration and protection efforts.
		Participate in National Wetlands Condition Assessment	The Kansas Alliance for Wetlands and Streams coordinated the NWCA sampling and assessment during late June/early July 2011. Four KWO staff members rotated two at a time on the sampling team. Much experience was gained in assessing wetland conditions. When data are available from EPA, they will be added to our wetland information.
	Continue Functional and Condition Assessments of Select Wetlands on a Periodic Basis to Track Trends	Establish a list of wetlands of statewide importance	A wetland and riparian classification system has been developed. This information is in the WRAP document "Classification of Wetland and Riparian Areas in Kansas". Because the wide variety of wetlands that occur in the state are not evenly distributed, the document states that targeting wetland and riparian areas for conservation is more appropriate at the county or basin scale. The document further notes that it is important to maintain a diversity of wetland and riparian areas within a given geographic area to preserve the variety of benefits they provide. Important criteria include scarcity and threat. When this document is updated over the next year, the establishment of a list as recommended in the WARP will be revisited.
		Compile wetland and riparian resource information to facilitate management and conservation decision making.	This information is contained in the WRAP documents that are being updated. In the 2008 WPDG, an attempt was made to estimate historic losses of acres and function in a HUC 12 watershed. The idea was to determine which functions had been lost over time so that priority restoration sites with specific functions could be identified. However due to lack of historic information about acres and functions of wetlands, the analysis did not provide the more specific results we were hoping for. It did however point out that forested wetlands have

			<p>been lost at a greater rate than other types.</p> <p>We have begun using GIS to locate and map wetland projects that have been completed in the past by various wetland agencies. These include the Division of Conservation and the Corps of Engineers. In the future we would like to include projects completed by a wider range of participants including non-profits, private consultants, KS Department of Transportation and others</p>
		Develop a Functional Capacity Index. Assess playa impacts to determine current condition and function.	This is an ongoing priority of the PLJV.
		Develop an Index of Biological Integrity for wetlands	This would help in tracking wetland function and could be the subject of a future WPDG. This could also be useful to PLJV understanding of the ability of playas to support migratory birds.
	Implement a Statewide Inventory System to Identify, Monitor and Evaluate the Status and Trends of Existing Wetland and Riparian Areas	Evaluate the development of a state clearing house for the FSA 35 mm slides that have been used for evaluating wetland manipulation.	No progress.
		Develop a method to identify wetlands on the landscape to supplement the NWI. Establish baseline information concerning condition and function.	Through WPDGs, KWO has worked with several agencies and consultants to develop the Topographic Wetland Identification Process (TWIP). This method is LiDAR based and incorporates floodplain analysis and a topographic wetness index model. During development the TWIP has been applied to several HUC 12 and 14 watersheds and will be applied to an additional HUC 12 watershed in conjunction with the 2011 WPDG currently being implemented. The method identifies "potential wetland areas" (PWA) and field verification is necessary to confirm an actual wetland. The

			User's Manual contains qualifiers to allow the user to assess the probability that a PWA is an actual wetland or type of wetland. It also can be used to identify potential restoration sites and to identify areas where fragmentation is a threat. As funds become available to apply the TWIP to additional watersheds, we will eventually have a statewide "Potential Wetland Area" GIS based data layer that will be available on several websites.
		Complete Light Detection and Radar (LiDAR) acquisition.	Because the TWIP is LiDAR based, LiDAR data are necessary to apply it to the landscape. LiDAR data have been acquired for about two-thirds of the state to date. Data for additional counties are being acquired as funds become available. Kansas has developed a LiDAR acquisition plan.
		Apply Topographic Wetland Identification Process (TWIP) to additional watersheds as funding is available.	WPDGs have been used to refine and apply the method. Additional funding resources need to be identified to apply the method to additional watersheds. The GIS Policy Board has funded a project intended to make the TWIP more widely accessible and used by more people.
		Establish a periodic reporting system to determine status and trends of wetland and riparian resources and to evaluate program effectiveness	Annual reports are prepared by KDHE summarizing status and trends for wetland water quality. KDHE performed a functional potential analysis on public wetlands in the early 1990s. This establishes a baseline for select public wetlands but has not been repeated. There are not enough data currently available to track function but this effort has been initiated through WPDGs.
		Integrate wetland and riparian information into the state geographic information system to facilitate use of these databases with other natural resources information	Conversations with DASC on this topic have been initiated. We have begun GIS consolidation of projects done by different agencies such as the Division of Conservation. This will allow us to have a better inventory of wetlands on the landscape.

Voluntary Restoration and Protection	Increase Public Understanding and Awareness of Wetland and Riparian Values and Functions, and Associated Conservation Efforts. Develop and Maintain an Information Network to Disseminate Information Through a Variety of Media About Wetland and Riparian Resources	Update the Wetland and Riparian Area Project publications and post to KWO website	In progress. Staff have re-entered the documents into Word so that electronic versions are available. Updated documents will be posted to the KWO website as they become available. These documents are very comprehensive and it is expected that having them available on the KWO website will greatly enhance public access to the information and increase understanding and awareness. We will begin designing the format for presentation of the information soon. No “one stop” comprehensive information exists at this time.
		Update the Wetland and Riparian Area Project – Conservation Goals and Strategies	In progress.
		Update the Wetland and Riparian Areas Program Directory Manual to reflect current agency organization	In progress.
		Update the Management Practices for Wetland and Riparian Areas Manual to include flood plain and best management practices for all wetland types including Playas	In progress.
		Update the Wetland and Riparian Areas in Kansas: Resources in Need of Conservation to include progress and activities since original publication	In progress.
		Update the Local Planning Guide for Wetland and Riparian Areas	In progress.
		Update the Classification of Wetland and Riparian Areas in Kansas Manual Review existing WRAP classification system and refine	In progress.

		with a statewide team of professionals	
	Provide Technical and Financial Assistance to Private Landowners for Protecting, Restoring or Enhancing Wetlands and Riparian Areas	Develop programs that target specific groups and provide educational opportunities on wetland and riparian values and functions.	Numerous agencies, local, state and federal, have developed programs and publications directed to both specific and general audiences. These publications are widely distributed. Field trips have been used for demonstration and educational purposes especially through the NPS and WRAPS programs. This is an ongoing activity.
		Utilize expertise of the Environmental Finance Center to explore sustainable financing for wetland and riparian projects. (EFC Technical Assistance Agreement)	In progress, plans are to finish this around July 2013. Kansas was selected by the EFC as one of three states to receive about 200 hours of technical assistance. Our focus is the feasibility of developing a revolving loan type of program for wetlands and other NPS projects.
		Improve coordination and cooperation among federal, state, local and private entities responsible for wetland and riparian stewardship to provide coordinated technical assistance to private landowners	The Wetland and Riparian Plan (WARP) team is used to coordinated activities among agencies. When a particular agency is contacted regarding a specific project, referrals to a different agency more suited to a particular project may be made, or agencies may partner to provide the best assistance. The WARP Team meets on an as-needed basis to discuss wetland and riparian issues and programs. The Team is made up of state, federal, local and NGO members.
		Consider development of a Wetland Reserve Enhancement Program for Playa Lakes.	Research into this is underway. This would most likely focus on the playa lakes region where farming practices associated with irrigation could be modified under the WREP.
		Develop a wetland restoration guide for better quality wetland restorations	The FY-12 WPDG will evaluate past wetland restorations and develop a guide to future wetland restoration and protection.
		Balance public benefits supplied by wetland and riparian resources with the rights of private property owners.	All programs except compensatory mitigation are voluntary. For demonstration projects, landowners have the option of allowing public access.

	Explore the whole range of incentives for wetland and riparian protection and management beyond direct financial assistance to landowners.	Partner with Land Trusts to offer additional incentives for protecting wetlands.	This effort has been initiated but has not received adequate attention. Efforts should be made to revive coordination activities to let Land Trusts know of state priorities for wetland protection.
		Explore possibility of creating a conservation easement funding source.	Ongoing. Funding in association with the Reservoir Roadmap was requested from the legislature in 2009 but was not granted. Due to economic conditions, funding has not been requested since then but when the economic outlook is improved, we will try again.
		Explore development of a Private Wetland Tax Credit Program.	Research about how this has been done in other states has occurred but not initiated in Kansas.
		Explore development of a Property Tax Incentive Program for landowners who permanently protect wetlands on their property.	Research about how this has been done in other states has occurred but not initiated in Kansas.
		Allow for exemption from state income tax those monies received from federal government cost share programs to protect wetlands.	Research about how this has been done in other states has occurred but not initiated in Kansas.
	Enhance Knowledge and Protection of Playa Lakes	Continue support of and participation in Playa Lake Joint Venture development of Decision Support Systems (DSS)	Wind Energy DSS complete and available for use. Conservation program DSS under development.
		Support PLJV efforts to improve playa watershed delineation	Ongoing. When LiDAR data are available, the TWIP could be applied to see how it might be useful for this.
		Support PLJV efforts to assess historic impacts to playas and determine their current condition	Ongoing.
		Support PLJV efforts to promote ecosystem services provided by playas, especially aquifer recharge	Ongoing. Playas are part of public information enhancement effort.

		Support Local Conservation Partnership Development in playa priority areas	Ongoing.
		Support PLJV effort to develop Best Management Practices for Wind Developers	Ongoing.
	Attain No Net Loss of Remaining Wetland and Riparian Resources, Considering Acreage, Function and Values	Use a watershed approach to protect and restore wetlands by integrating wetland goals into EPA 9-Element Plans	Ongoing, with additional emphasis as plans are revised. WRAPS groups are encouraged to establish wetland protection as a goal and to include this in 9-Element Plans. As the TWIP is overlain with watershed restoration needs, programs can be targeted to wetlands establishment and protection.
		Continue efforts to establish high quality functional wetland and stream mitigation banks	Ongoing participation on Interagency Review Team. Establishment of wetland and stream mitigation banks has increased. Watershed approach emphasized according to federal guidance.
		Increase quantity and quality of high priority wetland and riparian ecotypes.	401 coordination, WRAPS, NPS, USFWS, PLJV, KDWPT, PF, QU etc. all work towards providing high quality habitat for their programs.
		Identify and characterize high quality heritage wetlands	The 2011 WPDG is working in a pilot watershed to evaluate the relationship between high quality wetlands and high quality streams.
	Maintain Diversity of Wetland Riparian Ecotypes and Size Classes Across the State	Support development of Best Management Practices to protect and restore wetlands	The WRAP document "Management Practices for Wetland and Riparian Areas" is being updated to incorporate the most recent information based on science and lessons learned.
		Acquire high priority wetland and riparian areas in fee-title or easement from willing landowners.	Establishment of a state funded conservation easement program is being pursued. Until this is established, Land Trusts have this role. The Kansas Department of Wildlife, Parks and Tourism (KDWPT) can accept donated conservation easements.
		Optimize sustainable and multipurpose uses of wetland and riparian areas	Benefits of this are and will be emphasized in revisions and updates to the Local Planning Guide for Wetland and Riparian Areas WRAP

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			document. WRAPS documents also reflect this. The KS NPS Plan also encourages this.
		Plan and implement demonstration projects for management practices on wetland and riparian areas.	Ongoing. Current (2012) WPDG will gather specific information about success of WRP projects and offer suggestions for improvement.
		Enhance and restore wetland and riparian areas on public lands and manage them to their fullest function and value.	Ongoing with large complexes highest priority. These areas are managed by USFWS and KDWPT.
	Increase Efforts to Protect Playa Wetlands Through Partnership With Playa Lakes Joint Venture and Others	Support PLJV efforts to develop Local Conservation Partnerships within playa priority areas, especially in areas with biological priorities.	Ongoing, especially with KAWS partnership and funding of staff to encourage local implementation in southwest KS.
		Participate in efforts to develop suggested guidance for proper mitigation for specific playa impacts, especially from energy development activities.	Ongoing. Waiting on guidance from USFWS concerning Whooping Crane Habitat Conservation Plan.
		Identify an entity to hold mitigation/offset funds from wind energy development for dispersal to partner agencies and NGOs best suited and equipped to carry out implementation needs.	Ground work being laid for when USFWS issues guidance and methods for calculating compensation.
Regulatory	Utilize existing authorities to protect wetland and riparian areas.	Emphasize protection of natural wetland and riparian resources impacted by water development projects through the Water Projects Environmental Coordination Act.	KDWPT and KBS track potential impacts to these resources through this process and offer comments on public notices.
		Consider impacts to wetlands and riparian resources in the administration and enforcement of the Water Appropriation Act.	A Minimum Desirable Streamflow task force has been established to evaluate the benefits and impacts of a recreational water right that would address this issue.

		Work cooperatively with federal agencies to improve effectiveness of federal wetland regulatory programs.	This is mainly accomplished by the 404 Coordination group and the WARP Team. 401 certification conditions by KDHE are attached to COE 404 permits.
		Continue and strengthen 401 certifications for wetland and riparian projects	A policy paper is under development that will describe how to best protect remaining heritage streams. Strengthened 401 certifications will likely be a vehicle to achieve this and this issue will serve as a pilot for overall strengthening of 401 certifications.
		Review existing monitoring such as permits from the COE and DWR. Improve and monitor mitigation performance.	Could use more attention. Most activities in this area related to establishment and monitoring of mitigation banks and in-lieu fee programs. With the recent compensatory mitigation guidance in place, the state and federal agencies have established a more robust review and permitting process.
		Establish water rights necessary to maintain high quality wetland and riparian areas.	A Minimum Desirable Streamflow task force has been established to evaluate the benefits and impacts of a recreational water right that would address this issue.
		Support development of offsets and mitigation for wind energy development for Playa conservation.	Engaged in discussions, waiting for USFWS guidance on Whooping Crane Habitat Conservation Plan to proceed.
		Continue participation in 404 Coordination Team	Ongoing. Quarterly meetings are attended by state and federal resource agencies who have a part in the 404/401 programs.
	Support and encourage local planning efforts affecting wetland and riparian areas	Encourage incorporation of the conservation of valuable wetland and riparian areas into local comprehensive land use plans and utilization of existing planning and zoning regulatory measures as appropriate to implement the plan	Ongoing through presentations to appropriate groups such as Kansas Association of Counties Planning and Zoning Organization, KS Chapter of American Planning Association and other appropriate organizations including WRAPS groups for voluntary efforts. The WRAP document <i>Local Planning Guide for Wetland and Riparian Areas</i> is being updated. When this is complete, another round of meetings with these groups will be scheduled.

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			Share TWIP results when available with local planning and in-lieu fee programs to pre-identify sensitive areas to avoid or potential areas to protect.
		Support and encourage local planning efforts affecting wetland and riparian areas.	Ongoing through WRAPS, Conservation Districts, local units of government and others.
		Encourage the permanent protection of wetlands in floodplains through authorities of local governments.	Ongoing through work of DWR Floodplain Management Section. Many of the remaining wetlands in Kansas are in floodplains associated with riparian areas. Prevention of floodplain encroachment is an important aspect of protecting these wetlands. Increased coordination with DWR activities would be beneficial.
	Assess Public Opinion/Support for Enhanced Regulatory Protection. Assess Current Attitudes and Public Demand for Wetland and Riparian Conservation.	Complete public input questionnaire to assess public support for increased state oversight of wetland and riparian areas.	No recent activity.
		Explore possibility of developing a state Isolated Wetlands Permit for wetlands not currently or potentially not covered by federal regulation.	No activity.
		Evaluate the feasibility of State Programmatic General Permits.	No activity.
Water Quality Standards for Wetlands	Consider development of wetland specific water quality standards that incorporate wetland and riparian concerns.	Review information with the statewide team on existing data from KDWP, KDHE and USFWS. Utilize the team to make recommendations on additional aquatic life use needs.	Wetlands are defined as “waters of the state” and the same water quality standards applied to lakes are applied to wetlands. State definitions have been established for “wetland” and “riparian”. Data are being collected about water quality in private wetlands and compared with historic data about water quality in public wetlands. This will provide a broader range of

			data about a more diverse set of wetlands to establish what water quality can be expected in an array of wetland types.
	Review existing wetland designations for public lands and add designated uses for private wetlands.	Incorporate wetland and riparian concerns into state water quality standards.	No activity.
		Utilize TWIP where available in development of Total Maximum Daily Loads	Will initiate during 2013.
Research	Promote the Funding of Research Projects That Address Wetland and Riparian Issues Specific to Kansas and Evaluate the Design and Effectiveness of Best Management Practices.	Solicit additional needs	Apply TWIP to select playas. Analyze relationship between playa watershed size to wetland area to probability of playa being wet under different annual precipitation levels.
			What is the impact of culturally-accelerated sediment accumulation on the shrink and swell characteristics of the playa clay layer? What is the impact of culturally-accelerated sediment accumulation in playas on the rate of aquifer recharge?
			Gain better understanding of the role of playas and conservation actions on recharge to the Ogallala Aquifer. Determine the best restoration activities for restoring recharge and identify activities that will have minimum effect on recharge.
		Enhance scientific knowledge of wetland and riparian values, functions and management.	Ongoing, especially through efforts of Kansas Biological Survey, the Central Plains Center for Bio Assessment, and the Playa Lakes Joint Venture.